

Appl. No. 10/605,503
Amtd. dated March 23, 2005
Reply to Office action of February 01, 2005

Amendments to the Drawings:

- In response to an objection to the drawings, Figure 9 is added to clearly show a substrate 31, a plurality of heaters 33, and a nozzle 32. Paragraph [0026] provides support for the plurality of heaters 33 and the nozzle 32, and claim 1 provides support for the substrate 31 shown in
- 5 Figure 9. In addition, the plurality of nozzles 32 were also illustrated in Figure 2. Paragraph [0024.1] has been added to provide a brief description of new Figure 9, and paragraph [0026] has been amended to add reference numbers to the elements now illustrated in Fig.9. No new matter has been added through the addition of Fig.9 or through the amendments to the specification. Acceptance of the drawings and the specification is requested.

- 10 Attachment: One New Sheet

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REMARKS/ARGUMENTS

1. Objection to the drawings:

As explained in the Amendments to the Drawings section above, Figure 9 has been added as a new sheet in order to overcome this objection to the drawings. No new matter has been added, and acceptance of the drawings is requested.

2. Objection to the specification:

The disclosure is objected to because of the following informalities:

In paragraphs [0007] and [0008], the word ink is misspelled.

Response:

Paragraphs [0007] and [0008] have been amended to change the misspelled word "inkier" to become "inkjet". Acceptance of the corrected specification is requested.

3. Rejection of claims 1-4, 6-13, and 15-18 under 35 U.S.C. 102(b):

Claims 1-4, 6-13, and 15-18 are rejected under 35 USC 102(b) as being anticipated by Kneezel et al. (US 5,107,276).

Response:

Claims 1 and 10 have been amended to overcome this rejection. Claim 1 now contains the limitations previously found in claim 5, and claim 10 now contains the limitations previously found in claim 14. Claims 5 and 14 have been subsequently canceled. Claims 5 and 14 were previously indicated as being allowable if rewritten in independent form. Therefore, claims 1 and 10 are now in condition for allowance. Claims 2-4 and 6-9 and claims 11-13 and 15-18 are respectfully dependent on amended claims 1 and 10, and should be allowed if claims 1 and 10 are allowed.

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Reconsideration of claims 1-4, 6-13, and 15-18 is respectfully requested.

4. Introduction to new claims 19-24:

5 New claims 19 and 22 are drafted to respectively include the limitations found
in original claims 1 and 3 and original claims 10 and 12. Claims 19 and 22 contain
the limitation that "each set of nozzles consists of a plurality of nozzles". On the
other hand, Kneezel et al. (hereinafter Kneezel) only teaches counting the pulses of
individual heating elements (col.8, lines 31-36). Kneezel does not teach counting
printing data sent to a set of nozzles, where the set of nozzles consists of a plurality
10 of nozzles. For this reason, new claims 19 and 22 are patentable over Kneezel.

New claims 20 and 23 are drafted to respectively include the limitations found
in original claims 1 and 7 and original claims 10 and 16. Claims 20 and 23 recite that
if a printing signal is sent to a set of nozzles, and the total quantity of printing data
value corresponding to this set of nozzles is already greater than a threshold value,
15 that the total quantity of printing data value is not increased, but rather is kept
constant.

On the other hand, Kneezel teaches in col.9, line 67 to col.10, line 22 that if no
data is to be printed, pulse widths of subthreshold pulses (non-printing signals) are
adjusted so as to maintain the temperature of the printhead when no data is printed.
20 Kneezel does not teach that the total quantity of printing data is kept constant for
each printing signal sent to the set of nozzles if the total quantity of printing data
value is greater than a predetermined threshold value, as recited in the new claims 20
and 23. Therefore, new claims 20 and 23 are patentable over Kneezel.

New claims 21 and 24 are drafted to respectively include the limitations found
25 in original claims 1 and 8 and original claims 10 and 17. Claims 21 and 24 recite that
"the counter decreases the total quantity of printing data value corresponding to each
set of nozzles for each non-printing signal sent to the set of nozzles."

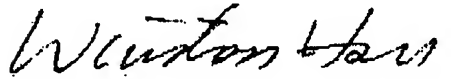
On the other hand, Kneezel teaches in col.9, lines 51-53 that when a printing

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pulse is generated for a heater, the number of compensating pulses (non-printing signals) to be generated by that heater is decremented. That is, less compensating pulses are needed when a heater is printing data. Therefore, Kneezel does not teach decreasing the total quantity of printing data value that corresponds to each set of
5 nozzles when a non-printing signal is sent to the set of nozzles. For these reasons, claims 21 and 24 are patentable over Kneezel. Acceptance of new claims 19-24 is respectfully requested.

10 Applicant respectfully requests that a timely Notice of Allowance be issued in this case.

Sincerely yours,



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(Note: Please leave a message in my voice mail if you need to talk to me. The time in D.C. is 13 hours behind the Taiwan time, i.e. 9 AM in D.C. = 10 PM in Taiwan).

Attachments